

This listing of claims will replace all prior versions, listings, of claims in the application:

Listing of Claims:

1 - 14. (cancelled)

15. (previously presented) A light-emitting device, comprising:

- a) a substrate;
- b) a first electrically conductive layer forming an anode electrode layer on the substrate;
- c) a hole transport layer on said anode electrode layer;
- d) a layer of a light emissive material on said hole transport layer;
- e) an electron transport layer comprising fullerenes located on said layer of a light emissive material;
- f) a first interfacial layer located between said layer of light emissive material and said electron transport material, said first interfacial layer comprising organic molecules with a LUMO energy level of about 2eV to about 3eV and HOMO energy of about 5 eV to about 7eV located on said layer of light-emissive material;
- g) a second electrically conductive layer forming a cathode electrode layer located on said electron transport layer; and
- h) a second interfacial layer located between said electron transport layer and said second electrically conductive layer, said interfacial layer comprising a fluoride compound for providing an Ohmic contact between said cathode electrode layer and said fullerene layer,
wherein the organic molecules in said first interfacial layer are selected from the group consisting of 4,4'-bis(carbazol-9-yl)-biphenyl; 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline; 1,3-Bis(5-(4-diphenylamino)phenyl-1,3,4-oxadiazol-2-yl)benzene; 3,4,5-Triphenyl-1,2,4-triazole; 3-(Biphenyl-4-yl)-4-phenyl-5-tert-butylphenyl-1,2,4-triazole; 3,5-Bis(4-tert-butylphenyl)-4-phenyl-

[1,2,4]triazole; 2-(4-Biphenyl)-5-(4-tert-butylphenyl)-1,3,4-oxadiazole; 1,3-Bis[5-(4-(1,1-dimethylethyl)phenyl)-1,3,4-oxadiazol-2-yl]benzene; 1,4-Bis(5-(4-diphenylamino)phenyl-1,3,4-oxadiazol-2-yl)benzene; and 1,3,5-Tris[5-(4-(1,1-dimethylethyl)phenyl)-1,3,4-oxadiazol-2-yl]benzene.

16. (cancelled)

17. (previously presented) The light-emitting device of claim 15 wherein said hole transport layer is comprised of organic molecules which conduct holes.

18. (previously presented) The light-emitting device of claim 15 wherein said hole transport layer has a thickness in a range from about 1 nm to about 300 nm.

19. (previously presented) The light-emitting device according to claim 15 wherein said second electrically conductive layer forming a cathode electrode layer is selected from the group consisting of Al, Cr, Cu, Ag, Au, Ni, Fe, Ni, W, Mo, Co and alloys or metal mixtures.

20. (original) The light-emitting device of claim 19 wherein said alloy or mixture is a Mg:Ag or Li:Al alloy or mixture.

21. (cancelled)

22. (previously presented) The light-emitting device of claim 15 wherein said second interfacial layer comprising a fluoride compound has a thickness in a range from about 0.2 nm to about 10 nm.

23. (previously presented) The light-emitting device of claim 15 wherein said fluoride compound is an alkaline fluoride compound.

24. (original) The light-emitting device of claim 23 wherein said alkaline fluoride compound is lithium fluoride (LiF).

25. (previously presented) The light-emitting device of claim 15 wherein said fluoride compound is calcium fluoride (CaF₂).

26. (previously presented) The light-emitting device of claim 15 wherein said second electrically conductive layer forming a cathode electrode layer is aluminum (Al).

27. – 29. (cancelled)

30. (original) The light-emitting device of claim 15 wherein said fullerenes are selected from the group consisting of C60, C70 and combinations thereof.

31. (original) The light-emitting device of claim 15 wherein said electron transport layer includes an organic molecule or polymer which are electron conductors mixed with said fullerenes.

32. (original) The light-emitting device of claim 31 wherein said organic molecule is tris-(8-hydroxyquinoline) aluminum (Alq), and wherein said fullerenes are selected from the group consisting of C60, C70 and combinations thereof.

33. (original) The light-emitting device of claim 15 wherein said electron transport layer includes lithium fluoride (LiF) mixed with said fullerenes.

34. (original) The light-emitting device of claim 15 wherein said electron transport layer includes metal particles mixed with said fullerenes.

35. (original) The light-emitting device of claim 34 wherein said metal particles are silver metal particles.

36. (original) The light-emitting device of claim 15 wherein said electron transport layer has a thickness in a range from about 1 nm to about 300 nm.

37 - 40. (cancelled)

41. (previously presented) The light-emitting device of claim 15 wherein the first electrically conductive layer forming an anode electrode layer on the substrate is a high work function material.

42. (original) The light-emitting device of claim 41 wherein the high work function material is selected from the group consisting of ITO, SnO₂, Ni, Pt, Au, p++ semiconductors including c-Si, a-Si, a-Si:H, and poly silicon.

43. (previously presented) The light-emitting device of claim 15 including a protective coating deposited on a top surface of the electrically conductive layer forming the cathode electrode.

44. (original) The light-emitting device of claim 43 wherein said protective coating is selected from the group consisting of dielectrics including oxides of Si and nitrides.

45. (previously presented) The light-emitting device of claim 43 wherein said protective coating is a fullerene layer.

46. (original) The light-emitting device of claim 15 including a power supply for applying a voltage across the anode electrode layer and the cathode electrode layer.

47 – 49. (cancelled)

50. (previously presented) The light-emitting device of claim 15 including an interfacial layer interposed between the electron transport layer and said electrically conductive layer forming a cathode electrode, said interfacial layer comprising a fluoride compound.

51. (previously presented) The light-emitting device of claim 15 including an interfacial layer interposed between the electron transport layer and said electrically conductive layer forming a cathode electrode, said interfacial layer comprising a low work function metal or alloy.

52. (previously presented) The light-emitting device of claim 51 wherein said low work function metal or alloy is selected from the group consisting of calcium (Ca), magnesium (Mg), and alloys of Mg:Ag and Li:Al.

53. (previously presented) The light-emitting device of claim 51 wherein said second electrically conductive layer forming a cathode electrode layer is aluminum.